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An approach to improving sailor morale and retention is for the Navy to develop a more personal relationship with each of its sailors, utilizing advances in information technology. Customer Relationship Management (CRM) is a concept that has personalized the marketing process over the Internet. An even newer concept, Employee Relationship Management (ERM), seeks to turn the lessons learned from CRM inwards to a company's own employees, not to sell them something but to develop a closer, more personalized relationship with them. This talk will describe a study that explored the idea of ERM within the Navy, resulting in Sailor Relationship Management (SRM.) The work included focus group interviews that led to the development of a survey instrument that was then used to determine what kinds of personalized information would be most attractive to sailors deployed at sea.

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## FINAL TECHNICAL REPORT

GRANT #: N00014-01-1-0917

PRINCIPAL INVESTIGATOR: Dr. Mark L. Gillenson (email: mgillnsn@memphis.edu)

**INSTITUTION:** The University of Memphis

<u>GRANT TITLE:</u> Sailor Relationship Management: The Use of Customer Relationship Management in Sailor Morale and Retention

<u>AWARD PERIOD</u>: 1 June 2001 – 31 May 2002

OBJECTIVE: The objective is to determine the means by which personalization of the Navy's relationship with its sailors through the use of information technology can improve sailor morale and retention. The primary focus and objective is how Customer Relationship Management (CRM) concepts and techniques can be adapted to the milieu of employee morale and retention in general, and in the Navy, specifically. The ultimate product will be a detailed blueprint of how the Navy can personalize its relationship with its sailors through information technology, which will lead to improved sailor morale and retention.

<u>APPROACH</u>: The work approach began with determining the opportunities that the Navy has to offer, such as job postings, training, and educational opportunities. It proceeded with a study of the kinds of data that the Navy stores about its sailors. Next was a series of focus group and personal interviews to further establish the range of personalization categories that would appeal to sailors. This led to the development of a survey instrument that would establish the interest that sailors had in the various personalization categories. Finally, the survey was conducted and the results analyzed.

## ACCOMPLISHMENTS: (throughout award period):

Background: As with any human organization, the U.S. Navy is only as effective as its personnel make it. Traditionally, the Navy's sailors have been a dedicated group, motivated by the concept of serving their country as well as by the desire to have a rewarding career. Nevertheless, it is clearly to the Navy's advantage to continually try to enhance the sailors' comfort level in and commitment to the Navy in any reasonable way that it can. One issue is morale. In any organizational endeavor, the happier the employees are with their work and employer, the more effective they will be as employees. Another issue is sailor retention. As the complexity and technical nature of military equipment of all descriptions increases, the return on the investment of recruiting and training qualified sailors becomes ever more critical. This translates directly into the issue of sailor retention. For the Navy to spend large amounts of time and money to recruit and train sailors for increasingly technical jobs, only to see them leave the military after a few years, is clearly counter-productive and is a very serious issue for military

readiness. Adding to the problem is the sharply increasing level of technology in society and industry, in general. This has led to a shortage of qualified workers in the civilian sector, driving up salary levels there and making it all the more attractive for military personnel to leave the military for the civilian sector.

It is thus to the Navy's advantage to build a relationship with its sailors that fosters improved morale, maximizes job satisfaction, and advances the goal of sailor retention. One avenue of approach to this problem is to create an environment in which each sailor feels that the Navy knows about him/her personally and cares about him/her personally. It is well known that people like to be treated as individuals and are more receptive to institutions that are capable of doing so. Developing a highly personalized relationship between the Navy and each of its sailors will improve sailor morale, job satisfaction, and retention. But how can an organization as big as the U.S. Navy possibly relate to each of its sailors on an individual basis? The answer to this question lies in the capabilities of modern information systems and in an emerging body of techniques developed in the field of marketing, known variously as Customer Relationship Management (CRM), one-to-one marketing, or personalized marketing.

CRM refers to a retailer offering a customer specific products for their consideration based on what the retailer already knows about the customer. There are several fundamental elements of CRM. First, the retailer and the customer must be able to communicate with each other on an individual or one-to-one basis. It doesn't necessarily have to be literally face-to-face, but it does have to be an isolated interaction between the one retailer and the one customer. Second, the retailer must be able to learn about the customer and have the capability to store what he has learned for future use. This data comes in three forms: demographics, preferences, and "sales history." Third, the retailer must be able to effectively use what he has learned about the customer in future marketing attempts.

The essence of this project is to turn the body of knowledge that has been built about CRM inward and apply it to an organization's own employees, specifically to the Navy's sailors. There is a great deal of commonality between personalization in marketing and in employee relations. Both include reaching out and establishing relationships with individual people, developing loyalty, and retaining interest in the organization. How is the Navy to do this with its sailors? In both cases the organizations can collect demographic and preference data about their customers, in the marketing case, or their employees in the employee relations case. In marketing there is sales history. In employee relations there is job assignment history, skills inventory, training completed, and so on. Putting all of this together for the Navy, the basic premise, as one might present it to a sailor, is this:

"You are on a ship in the middle of the ocean and you sign on to a personalized Navy Internet web site or 'portal' via satellite. You identify yourself to the portal and immediately are presented with a variety of information that is tailored to your personal needs and interests." The question is, what kinds of personalized information would sailors like to see that generally speaking would make them happy?

Several Navy Web sites already exist that either provide general information to sailors and, in some cases, to their families, or go beyond that and allow the sailors to access personal data about themselves. These include Bupers Access (BA), Bupers Online (BOL), Job Assignment and Selection System (JASS), Lifelines, and Staynavy. But none of them include the kind of automated personalization being proposed here.

<u>Focus Group Interviews</u>: Through observations of commercial Internet portals and discussions with a wide variety of naval personnel at the Naval Personnel Command in Millington, TN, we established a short list of the major types of personalization that would be interesting and useful to sailors. This list was enhanced by a focus group interview on this subject held on July 26, 2001 with a group of six Navy Counselors at their annual meeting at the Adams Mark Hotel in Memphis.

This list was further refined and expanded based on six focus group interviews conducted with sailors aboard the guided-missile frigate USS Stephen W. Groves (FFG-29) at the Pascagoula, MS Naval Station on October 4-5, 2001. One group consisted of officers, two groups consisted of chiefs, and three groups consisted of sailor in grades E-1 through E-6.

The result was the following list of six major categories of personalized interchange between the Navy and its sailors:

- 1. General Interest Information.
- 2. Family Communications.
- 3. Career and Training Information.
- 4. Military News.
- 5. Shipmate News.
- 6. Job-Related Information.

The Survey Instrument: Further refinement and discussions with personnel at the Naval Personnel Command in Millington, TN resulted in the survey instrument shown in Appendix 1. The six major categories were expanded to include a Health and Fitness Information category and each of the now seven categories were fleshed-out with multiple sub-categories. We believe that the seven lists of category/subcategories, gleaned from the focus groups and the other background work, are important in and of themselves, even without the survey results.

The Survey: The survey was conducted on May 13-15, 2002, on board the USS Constellation (CV 64) and the USS Peleliu (LHA 5), both docked at the San Diego Naval Base. The subjects were a convenience sample of 450 sailors, chosen with the sole stipulation that each had already served at sea. The demographics of the subjects are shown in Appendix 2. Most were young (55% age 20-24), of lower grades (74% grade E2-E4), single (64%), and had no children under the age of 21 (70%.)

The subjects were asked to rank order the importance to them of the seven major categories, where 1 was the most important and 7 was the least important. The results, shown in Appendix 3, include the following major category means, in order:

- 1.76 Family Communications
- 3.17 General Interest Information
- 3.25 Career and Training Information
- 3.95 Job-Related Information
- 4.58 Health and Fitness Information
- 5.12 Military News
- 6.16Shipmate News

The major categories ranked first, in order, were:

- 66.5% Family Communications
- 12.0% Career and Training Information
- 11.0% General Interest Information
- 5.6% Job-Related Information
- 2.3% Health and Fitness Information
- 2.0% Military News
- 0.5% Shipmate News

Because of the heavy skew towards family communications, it was interesting to see which categories were ranked second, most often:

- 33.2% General Interest Information
- 24.6% Career and Training Information
- 14.1% Job-Related Information
- 13.3% Family Communications
- 7.9% Health and Fitness Information
- 5.1% Military News
- 1.8% Shipmate News

The survey instrument, Appendix 1, shows all of the subcategories. For all of the categories, except Family Communications, we asked the subjects to check the five subcategories of greatest interest. (Family Communications had a small number of choices so we asked for the top three subcategories.) The results are shown in Appendix 4. The major results for the four most significant categories, showing the percentage of subcategories checked within each category, were:

### Family Communications

- 96.1% Family emails.
- 87.8% Family photos.

#### General Interest Information

- 66.2% Liberty Port Information (For Upcoming Visits)
- 61.2% Music Releases
- 51.6% News (World Headlines)
- 51.4% Movie Releases

### Career and Training Information

- 92.0% Advancement Results Notification (for you)
- 78.7% College Courses to Be Offered (PACE Announcements)
- 66.0% Incentive/Bonus/Special Pay/Allowances Info, Offers
- 61.6% Personnel/Pay Record: Reminder to Update

#### Job-Related Information

80.4% Technical Questions: Answers to Technical Questions <u>You Have Posted</u> on the Internet Given by Sailors of Your Rate on Other Ships

79.8% Technical Questions: Technical Questions Posted on the Internet by Sailors on Other Ships Seeking Help from You and Others of Your Rate

75.7% Sailor Best Practices: "How to Get Things Done", Peer-to-Peer Heads Up, (regarding new regulations involving you, etc.)

<u>CONCLUSIONS</u>: The main conclusion is the establishment of the personalization categories and subcategories, plus the survey results showing the relative sailor interest in them, as discussed above. Further, Appendix 5 demonstrates that a Pearson Chi-Square test revealed that there was a positive but marginal effect of marital status on the choice of Family Communication as the most important category. Appendix 6 shows that there was no effect of grade, age, or duty on the nine career subcategories. Appendix 7 shows that there was no effect of grade, age, or duty on the eight job-related subcategories.

Two notes should be made regarding using these results and conclusions in the implementation of a Navy portal. One is that in any such implementation, it would be unwise to attempt to provide all of these personalization categories and subcategories in the first implementation phase. Thus, the survey results are very valuable in providing guidelines for which categories and subcategories to implement first to produce the greatest impact at the earliest opportunity.

The second is that careful consideration should be given to outsourcing as much of this personalization as possible. Two immediately obvious possibilities are to outsource the General Interest Information category to a company with a "my yahoo" type of facility. The other is to outsource the Shipmate News category to a "Classmates.com" type of company.

<u>SIGNIFICANCE</u>: The significance of this study is that we have established a set of personalization categories and subcategories, plus the relative interest in them that sailors have, which can be used as the basis for the personalization of a Navy Internet portal. Ultimately, the significance is that this should improve sailor morale and retention.

PATENT INFORMATION: none

AWARD INFORMATION: none

REFEREED PUBLICATIONS (for total award period):

A paper will be submitted to a refereed journal by the end of this calendar year.

# **Appendix 1: Survey Instrument**

# SURVEY ON PERSONALIZING AN INTERNET SESSION WHILE AT SEA

Office of Naval Research Contract #N00014-01-1-0917

This is a study that will be evaluating the most important types of information that the Navy can "push" or provide for you upon signing on to the Internet while at sea. Here is the idea:

"You are on a ship in the middle of the ocean and you sign on to a personalized Navy Internet web site or 'portal' via satellite. You identify yourself to the portal and immediately are presented with a variety of information that is tailored to your personal needs and interests." The present study seeks to understand the kinds of personalized information that you would like to see and that generally speaking would make you happy.

Please do not consider the degree of Internet access that you have experienced at sea up to this point. This is forward-looking research that assumes that Internet access at sea will steadily improve over time.

Personalized information means information that is specific to you, to a group that you fall into, or to your interests. The personalization is based on data that the Navy normally maintains about you (pay grade, occupational specialty, i.e. enlisted rating or officer community, length of service, etc.) and on interest data that you may voluntarily provide (type of military news you are interested in, favorite sports teams, whether or not you are interested in news about past shipmates, etc.)

This study <u>only</u> concerns information that you wish to be automatically "pushed" or brought to you at the beginning of each Internet session, based on who you are and on the interest data that you have previously given. It <u>does not</u> involve "surfing the Web" or seeking information while you are logged on.

This short survey should only take 10-15 minutes to fill-out. Thank you.

Mark L. Gillenson, Ph.D.
Professor of Management Information Systems
Fogelman College of Business and Economics
The University of Memphis
Memphis, TN 38152

### PRIVACY ACT STATEMENT

Public Law 93-579, (called the Privacy Act of 1974) requires that you be informed of the purposes of this survey and of the uses to be made of the information collected. The authority to collect this information is granted under Title 10, United States Code, sections 136 and 2358. Please read the following details regarding the study and ask any questions you may have before continuing on to the survey.

PURPOSE: The purpose of this survey is to determine the types of data that Sailors would like to see when they sign on to a Navy Internet portal and identify themselves. This study is being sponsored by the Office of Naval Research under research grant #N00014-01-1-0917.

ROUTINE USES: The information provided in this survey will be analyzed by the principal investigator, Dr. Mark L. Gillenson at The University of Memphis. The data will support the development of plans to create future Navy Internet portals for Sailors.

CONFIDENTIALITY: All responses are anonymous and will be held in confidence by the principal investigator, Dr. Mark L. Gillenson. Information you provide will be considered only when statistically combined with the responses of others and will <u>NOT</u> be identified with any single individual. The information provided will <u>NOT</u> become part of the military record of any service member and will <u>NOT</u> affect your career in any way.

PARTICIPATION: Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will <u>NOT</u> result in any penalties except for lack of representation of <u>your views</u> in the final results.

### **About You**

Instructions: Please answer the following questions about your background. Do NOT write your name or social security number on any of these forms.

What is E-1 E-2 E-3 E-4 E-5 E-6 E-7 E-8 E-9	W-2 W-3 W-4 O-1E O-2E	rent pay grade? (Circle your response) O-1 O-2 O-3 O-4 O-5 O-6 O-7 or above
What is	your curr	ent age?
How ma	any years	have you been on active duty in the Navy?
What is Male Female	your gend	ler? (Circle your response)
Single ( Married Remarri	never mar (for the filed (was di Separated d	,
Do you Yes No	currently l	nave children under the age of 21? (Circle your response)
Are You Yes No	a Supervi	sor? (Circle your response)

### **Major Categories**

We have identified seven major categories of personalized information.

**Instructions:** Please rank order the seven major categories based on your interest in them. Mark the category that you feel would interest you the most in terms of personalized information with a "1", the second most important with a "2", and so on to "7" (being the least important)."

 Career and Training Information (information about bonuses, your upcoming rotation, training opportunities, etc.)
 Family Communications (emails, photos, video clips, etc. from your family)
 General Interest Information (world news, hometown news, scores of favorite sports teams, selected stock quotes, etc.)
 Health and Fitness Information (reminders of physical exams, fitness tests, etc.)
 <b>Job-Related Information</b> (answers to your job-related technical questions, status of parts you have on order, etc.)
 Military News (news about the Navy and other services in categories that you select.)
 Shipmate News (news about current and past shipmates)

### Category I. General Interest Information

Weather (Your Hometown)

Weather (Your Homeport City)

Instructions: Please check up to five (5) general interest categories that would interest you the most. (Do not rank order.) \_\_\_ Horoscopes \_\_\_ Liberty Port Information (For Upcoming Visits) \_\_\_ Lottery Results Movie Releases \_\_\_ Music Releases \_\_\_ News (U.S. Headlines) News (World Headlines) News (Your Hometown) News (Your Homeport City) Sports (General Headlines) Sports (Major Contest Results) Sports (Your Favorite Teams' Results) Stock Market (Market Averages and News) Stock Market (Quotes of Particular Stocks/Mutual Funds) Weather (General U.S.)

## Category II. Family Communications

<b>Instructions:</b> Please <u>check up to three (3)</u> family communications categories that would interest you the most. (Do not rank order.)
Family Emails
Family Photos
Family Video Clips
Reminders: Anniversary
Reminders: Birthday
Reminders: Upcoming Leave
Category III. Shipmate News
<b>Instructions:</b> Please check up to five (5) shipmate news categories that would interest you the most. (Do not rank order.)
Current Shipmates: Awards
Current Shipmates: Family News
Current Shipmates: New Assignments
Current Shipmates: Promotions
Current Shipmates: Retirements
Past Shipmates: Awards
Past Shipmates: Family News
Past Shipmates: New Assignments
<u> </u>
Past Shipmates: New Assignments

# Category IV. Career and Training Information

<b>Instructions:</b> Please <u>check up to five (5)</u> career and training information categories that would interest you the most. (Do not rank order.)
Advancement Results Notification (for you)
Announcements about Your Enlisted Rating or Officer Community
Announcements of Openings in Enlisted Ratings (for undesignated personnel, for personnel in overmanned rates who are needed in a related rate, for personnel who indicate they want to change rates)
College Courses To Be Offered (PACE Announcements)
Incentive/Bonus/Special Pay/Allowances Information, Offers
Personnel/Pay Record: Reminder to Update
Qualifications: Reminder of Qualifications/Recertifications
Rotation: Reminder of Dates for Your Upcoming Rotation
Training Courses Appropriate for Your Professional Development (Notice of)
Training Courses Appropriate for Your Professional Development (Notice of)  Category V. Health and Fitness Information
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder  Dental Exam: Reminder of Your Annual Dental Exam
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder  Dental Exam: Reminder of Your Annual Dental Exam  Fitness Class Schedule
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder  Dental Exam: Reminder of Your Annual Dental Exam  Fitness Class Schedule  Fitness Test: Reminder of Your Upcoming Fitness Test
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder  Dental Exam: Reminder of Your Annual Dental Exam  Fitness Class Schedule  Fitness Test: Reminder of Your Upcoming Fitness Test  Health/Fitness News
Category V. Health and Fitness Information  Instructions: Please check up to five (5) health and fitness information categories that would interest you the most. (Do not rank order.)  Dental Appointment: Reminder  Dental Exam: Reminder of Your Annual Dental Exam  Fitness Class Schedule  Fitness Test: Reminder of Your Upcoming Fitness Test  Health/Fitness News  Health/Fitness Tips

# Category VI. Job-Related Information Instructions: Please check up to five (5) job-related information categories that would interest you the most. (Do not rank order.) \_\_\_ Conferences: Notification of by Rate Evaluation Input: Reminder of Due Date Sailor Best Practices: "How to Get Things Done", Peer-to Peer Heads Up, (regarding new regulations involving you, etc.) Parts-on-Order: Status of Parts You Have on Order Reunions: Notification of Reunions by Rate Subordinates: Reminder of Their Appointments, Due Dates, etc. Technical Questions: Answers to Technical Questions You Have Posted on the Internet, Given by Sailors of Your Rate on Other Ships Technical Questions: Technical Questions Posted on the Internet by Sailors on Other Ships Seeking Help from You and Others of Your Rate Category VII. Military News Instructions: Please check up to five (5) military news categories that would interest you the most. (Do not rank order.) About Your Home Port \_\_\_\_ About Your Enlisted Rating or Officer Community About Your Ship About Your Battle Group BUPERS/NPC News Stories \_\_\_ EARLY BIRD (DOD) \_\_\_ LINK (Enlisted Professional Bulletin) Perspective (Officers Professional Bulletin)

Nav News (Official Navy News)

\_\_\_ Navy Times

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**Thank You For Completing This Survey** 

# Appendix 2: Survey Demographics Frequencies

**Completed Survey Statistics** 

	1	GRADE	AGE	DUTY	GENDER	MARRIED	CHILDREN	SUP
N	Valid	438	448	448	449	445	446	448
	Missing	12	2	2	1	5	4	2

# **Survey\*Demographics Frequency Tables**

GRADE

GRADE								
		Frequency	Percent	Valid Percent	Cumulative Percent			
	e1	19	4.2	4.3	4.3			
	e2	49	10.9	11.2	15.5			
	e3	125	27.8	28.5	44.1			
	e4	157	34.9	35.8	79.9			
Valid	e5	47	10.4	10.7	90.6			
	e6	38	8.4	8.7	99.3			
	e7	2	0.4	0.5	99.8			
	03	1	0.2	0.2	100			
	Total	438	97.3	100.0				
Missing	System	12	2.7					
Total		450	100					

AGE

AGE								
		Frequency	Percent	Valid Percent	Cumulative Percent			
	17-19	64	14.2	14.3	14.3			
	20-24	247	54.9	55.1	69.4			
	25-29	65	14.4	14.5	83.9			
Valid	30-34	38	8.4	8.5	92.4			
v and	35-39	24	5.3	5.4	97.8			
	40-44	7	1.6	1.6	99.3			
	45-49	3	0.7	0.7	100			
	Total	448	99.6	100				
Missing	System	2	0.4					
Total		450	100					

DUTY

DULY								
		Frequency	Percent	Valid Percent	Cumulative Percent			
	0-3	303	67.3	67.6	67.6			
	4-6	75	16.7	16.7	84.4			
	7-9	17	3.8	3.8	88.2			
Valid	10-12	17	3.8	3.8	92.0			
Vand	13-15	16	3.6	3.6	95.5			
	16-18	18	4.0	4.0	99.6			
	19-21	2	0.4	0.4	100			
	Total	448	99.6	100				
Missing	System	2	0.4					
Total		450	100					

**GENDER** 

GENDER								
		Frequency	Percent	Valid Percent	Cumulative Percent			
	Female	13	2.9	2.9	2.9			
Valid	Male	436	96.9	97.1	100			
	Total	449	99.8	100				
Missing	System	1	0.2					
Total		450	100					

MARRIED

		17173	KKIED		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Married	285	63.3	64	64
v anu	Married	160	35.6	36	100
	Total	445	98.9	100	
Missing	System	5	1.1		
Total		450	100	·	

**CHILDREN** 

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	316	70.2	70.9	70.9
Valid	Yes	130	28.9	29.1	100
	Total	446	99.1	100	
Missing	System	4	0.9		
Total		450	100		

SUPERVISOR

SCIENTION										
		Frequency	Percent	Valid Percent	Cumulative Percent					
	No	296	65.8	66.1	66.1					
Valid	Yes	152	33.8	33.9	100					
	Total	448	99.6	100						
Missing	System	2	0.4							
Total		450	100							

# **Appendix 3: Survey Category Importance and Counts**

# Grand Survey Category Importance

(1=most	important	, N= 89.1%	or 391 of	450 usable	e surveys)	
CAT1	CAT2	CAT3	CAT4	CAT5	CAT6	_

Mean		CAT1 Career	CAT2 Family	CAT3 General	CAT4 Health	CAT5 Job 3.95	CAT6 Navy	CAT7 Mates
050/ 051	I away Day d		2.70	3.17	7.56	3.93	5.12	6.16
95% Confidence Interval for Mean	Lower Bound	3.09	1.63	3.02	4.42	3.8	4.97	6.04
	Upper Bound	3.41	1.89	3.33	4.74	4.1	5.27	6.29
5% Trimmed Mean		3.18	1.58	3.1	4.62	3.96	5.21	6.32
Median		3	1	3	5	4	6	7
Std. Deviation		1.57	1.33	1.6	1.61	1.53	1.46	1.28

Grand Survey Category Counts
(1=most important, N= 89.1% or 391 of 450 usable surveys) CAT \* RANK Crosstabulation

						RANK			
			1	2	3	4	5	6	7
		Count	47	96	. 96	70	44	22	16
	Career	% within RANK	12.00%	24.60%	24.60%	17.90%	11.30%	5.60%	4.10%
		Count	260	52	32	21	15	8	3
	Family	% within RANK	66.50%	13.30%	8.20%	5.40%	3.80%	2.00%	0.80%
		Count	43	130	75	58	43	28	14
	General	% within RANK	11.00%	33.20%	19.20%	14.80%			
		Count	9	31	64	14.80%	11.00%	7.20%	3.60%
CAT	Health	% within RANK	2.30%	7.90%	16.40%	22.50%	20.50%	14.30%	16.10%
		Count	22	55	78	80	93	48	15.1076
	Job	% within RANK	5.60%	14.10%	19.90%	20.50%	23.80%	12.30%	3.80%
		Count	8	20	33	46	84	149	51
	Navy	% within RANK	2.00%	5.10%	8.40%	11.80%	21.50%	38.10%	
		Count	2	7	13	28	32	80	13.00%
	Mates	% within RANK	0.50%	1.80%	3.30%	7.20%	8.20%	20.50%	58.60%

# **Appendix 4: Detail Question Counts**

## Detail Categorical Valid Response Rate

Descriptive S	Statistics	Category N	Selections	%
	Q101	420	103	24.52%
	Q102	420	278	66.19%
	Q103	420	21	5.00%
	Q104	420	216	51.43%
	Q105	420	257	61.19%
	Q106	420	165	39.29%
	Q107	420	217	51.67%
C-41	Q108	420	151	35.95%
	Q107 42 Q108 42 Q109 42 Q110 42 Q111 42 Q112 42 Q113 42 Q114 42 Q115 42 Q116 42 Q117 42 Q109 43 Q201 43 Q202 43 anily Q204 43 Q205 43 Q206 43 Q301 32 Q302 32	420	66	15.71%
General	Q110	420	173	41.19%
	Q111	420	83	19.76%
	Q112	420	154	36.67%
	Q113	420	66	15.71%
	Q114	420	73	17.38%
	Q115	420	69	16.43%
	Q116	420	41	9.76%
	Q117	420	35	8.33%
	Q201	434	417	96.08%
	Q202	434	381	87.79%
Category 2:	Q203	434	272	62.67%
Family	Q204	434	42	9.68%
	Q205	434	108	24.88%
	Q206	434	101	23.27%
	Q301	321	234	72.90%
	Q302	321	206	64.17%
	Q303	321	228	71.03%
	Q304	321	262	81.62%
Category 3:	Q305	321	175	54.52%
Shipmates	Q306	321	70	21.81%
<b>F</b>	Q307	321	77	23.99%
	Q308	321	89	27.73%
	Q309	321	111	34.58%
	Q310	321	65	20.25%
	Q311	321	102	31.78%
	Q401	385	354	91.95%
	Q402	385	153	39.74%
	Q403	385	157	40.78%
Category 4:	Q404	385	303	78.70%
Caregory 4.	Q405	385	254	65.97%
	Q406	385	237	61.56%
	Q407	385	132	34.29%
	Q408	385	143	37.14%
	Q409	385	212	55.06%

	Q501	348	1 220	65.5004
			228	65.52%
	Q502	348	176	50.57%
	Q503	348	144	41.38%
Category 5:	Q504	348	175	50.29%
Health &	Q505	348	159	45.69%
Fitness	Q506	348	232	66.67%
	Q507	348	226	64.94%
	Q508	348	185	53.16%
	Q509	348	230	66.09%
	Q601	317	188	59.31%
	Q602	317	215	67.82%
	Q603	317	240	75.71%
Category 6:	Q604	317	174	54.89%
Job	Q605	317	109	34.38%
i	Q606	317	158	49.84%
	Q607	317	255	80.44%
	Q608	317	253	79.81%
	Q701	348	276	79.31%
	Q702	348	185	53.16%
	Q703	348	247	70.98%
Category 7:	Q704	348	217	62.36%
Military	Q705	348	164	47.13%
News	Q706	348	57	16.38%
	Q707	348	176	50.57%
	Q708	348	39	11.21%
	Q709	348	162	46.55%
	Q710	348	237	68.10%

# **Appendix 5: Demographic Effects on the Importance of Family Communications**

# Family Effect Crosstabs MARRIED \* FAM1ST Crosstabulation

		MAIGGE	1 7 3 1 7 1 1 1	of Crossi	avula	11011				
					FAN	M1ST				
	7		1 2 3 4 5 6 7						Total	
		Count	155	41	23	. 15	11	6	2	253
	No	Expected Count	168.9	33.3	20	13.7	9.8	5.2	2	253
MADDIED		Std. Residual	-1.1	1.3	0.6	0.4	0.4	0.3	0	
MARRIED	Yes	Count	104	10	8	6	4	2	1	135
		Expected Count	90.1	17.7	11	7.3	5.2	2.8	1	135
		Std. Residual			-		_			
		Stu. Residual	1.5	1.8	0.8	-0.5	0.5	-1	0	
Total		Count	259	51	31	21	15	8	3	388
10001		<b>Expected Count</b>	259	51	31	21	15	8	3	388

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.704(a)	6	0.098
Likelihood Ratio	11.253	6	0.081
Linear-by-Linear Association	4.41	1	0.036
N of Valid Cases	388		0.030

a 3 cells (21.4%) have expected count less than 5. The minimum expected count is 1.04.

AGE \* FAM1ST Crosstabulation

		AGE		Crossta		M1ST				
			1	2	3	4	5	6	7	Total
		Count	39	9	5	3	3	0	0	59
	17-19	<b>Expected Count</b>	39.2	7.9	4.8	3.2	2.3	1.2	0.5	59
		Std. Residual	0	0.4	0.1	-0.1	0.5	-1	-1	
		Count	136	30	16	12	10	7	2	213
	20-24	Expected Count	141.5	28.4	18	11.5	8.2	4.4	1.6	213
		Std. Residual	-0.5	0.3	0.4	0.2	0.6	1.3	0.3	
		Count	46	3	5	3	1	0	0	58
	25-29	Expected Count	38.5	7.7	4.8	3.1	2.2	1.2	0.4	58
		Std. Residual	1.2	-1.7	0.1	-0.1	0.8	-1	-1	
		Count	18	5	3	2	0	1	1	30
AGE	30-34	Expected Count	19.9	4	2.5	1.6	1.2	0.6	0.2	30
		Std. Residual	-0.4	0.5	0.3	0.3	1.1	0.5	1.6	
		Count	15	4	I	1	0	0	0	21
	35-39	Expected Count	13.9	2.8	1.7	1.1	0.8	0.4	0.2	21
		Std. Residual	0.3	0.7	0.6	-0.1	0.9	-1	-0	
		Count	4	0	2	0	1	0	0	7
	40-44	<b>Expected Count</b>	4.6	0.9	0.6	0.4	0.3	0.1	0.1	7
		Std. Residual	-0.3	-1	1.9	-0.6	1.4	-0	-0	
		Count	1	1	0	0	0	0	0	2
	45-49	Expected Count	1.3	0.3	0.2	0.1	0.1	0	0	2
		Std. Residual	-0.3	1.4	0.4	-0.3	0.3	-0	-0	
		Count	259	52	32	21	15	8	3	390
Total	Total Expected Co		259	52	32	21	15	8	3	390

Chi-Square Tests

Chi-square rests									
	Value	df	Asymp. Sig. (2- sided)						
Pearson Chi-Square	27.813(a)	36	0.834						
Likelihood Ratio	31.965	36	0.661						
Linear-by-Linear Association	0.271	1	0.603						
N of Valid Cases	390		0.003						

a 38 cells (77.6%) have expected count less than 5. The minimum expected count is .02.

**DUTY \* FAM1ST Crosstabulation** 

		DOIX	FAMISI Crosstabulation FAMIST							
			1 2 3 4 5 6 7							
		Count	176	35	22	15	11	5	2	266
	0-3 years	Expected Count	177.3	34.8	22	14.3	10	5.5	2	266
		Std. Residual	-0.1	0	0	0.2	0.2	-0	0	200
1		Count	41	9	6	3	3	2	0	64
	4-6 years	Expected Count	42.7	8.4	5.3	3.4	2.5	1.3	0.5	64
		Std. Residual	-0.3	0.2	0.3	-0.2	0.3	0.6	-1	
	į	Count	13	1	0	1	0	0	0	15
	7-9 years	<b>Expected Count</b>	10	2	1.2	0.8	0.6	0.3	0.1	15
		Std. Residual	0.9	-0.7	1.1	0.2	0.8	-1	-0	
		Count	12	0	2	0	0	0	1	15
XX 1703 7	10-12 years	<b>Expected Count</b>	10	2	1.2	0.8	0.6	0.3	0.1	15
DUTY	years	Std. Residual	0.6	-1.4	0.7	-0.9	0.8	-1	2.6	
		Count	5	4	1	2	0	0	0	12
	13-15 years	<b>Expected Count</b>	8	1.6	1	0.6	0.5	0.2	0.1	12
	years	Std. Residual	-1.1	1.9	0	1.7	0.7	-1	-0	
		Count	11	2	1	0	1	1	0	16
	16-18 years	Expected Count	10.7	2.1	1.3	0.9	0.6	0.3	0.1	16
	years	Std. Residual	0.1	-0.1	0.3	-0.9	0.5	1.2	-0	
		Count	2	0	0	0	0	0	0	2
	19-21	Expected Count	1.3	0.3	0.2	0.1	0.1	0	0	2
	years	Std. Residual	0.6	-0.5	0.4	-0.3	0.3	-0	-0	
Total		Count	260	51	32	21	15	8	3	390
Total		Expected Count	260	51	32	21	15	8	3	390

	om square rests		
	Value	df.	Asymp. Sig. (2- sided)
Pearson Chi-Square	28.570(a)	36	0.806
Likelihood Ratio	30.467	36	0.729
Linear-by-Linear Association	0.06	1	0.807
N of Valid Cases	390		

a 36 cells (73.5%) have expected count less than 5. The minimum expected count is .02.

# Appendix 6: Demographic Effects on the Importance of Career and Training Information

**GRADE** \* **RESPONSE** Crosstabulation

			KADE			rosstat RES	PONS					Total
			1	1 2 3 4 5 6 7 8 9								
		Count	17	4	8	15	11	9	12	6	9	91
	e1	<b>Expected Count</b>	16.5	7.2	7.3	14.1	11.8	11.1	6.2	6.8	10	91
		Std. Residual	0.1	-1.2	0.2	0.2	-0.2	-0.6	2.3	-0.3	-0.3	
		Count	35	16	24	36	29	23	21	7	24	215
	e2	<b>Expected Count</b>	39	17	17.4	33.2	27.8	26.2	15	16	23.7	215
		Std. Residual	-0.6	-0.2	1.6	0.5	0.2	-0.6	1.7	-2.2	0.1	
		Count	100	35	49	91	69	75	37	46	57	559
e3	Expected Count	101.5	44.2	45.1	86.4	72.3	68.1	38	42	61.7	559	
		Std. Residual	-0.1	-1.4	0.6	0.5	-0.4	0.8	-0.2	0.7	-0.6	
		Count	129	60	50	103	96	80	32	50	67	667
GRADE	e4 Expected Count Std. Residual	121.1	52.8	53.9	103.1	86.2	81.3	45	50	73.6	667	
GRADE			0.7	1	-0.5	0	1.1	-0.1	-2	0.1	-0.8	
		Count	33	17	12	30	22	24	13	17	24	192
	e5	<b>Expected Count</b>	34.9	15.2	15.5	29.7	24.8	23.4	13	14	21.2	192
		Std. Residual	-0.3	0.5	-0.9	0.1	-0.6	0.1	0	0.7	0.6	
		Count	28	16	10	18	18	19	12	13	27	161
	e6	<b>Expected Count</b>	29.2	12.7	13	24.9	20.8	19.6	11	12	17.8	161
		Std. Residual	-0.2	0.9	-0.8	-1.4	-0.6	-0.1	0.3	0.3	2.2	
		Count	2	2	0	0	0	1	2	2	1	10
	<b>e</b> 7	<b>Expected Count</b>	1.8	0.8	0.8	1.5	1.3	1.2	0.7	0.7	1.1	10
		Std. Residual	0.1	1.4	-0.9	-1.2	-1.1	-0.2	1.6	1.5	<b>~</b> 0.1	
Total		Count	344	150	153	293	245	231	129	141	209	1895
l otal		Expected Count	344	150	153	293	245	231	129	141	209	1895

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	52.275(a)	48	0.311
Likelihood Ratio	53.802	48	0.262
Linear-by-Linear Association	0.751	1	0.386
N of Valid Cases	1895	<u>-</u>	

a 9 cells (14.3%) have expected count less than 5. The minimum expected count is .68.

AGE \* RESPONSE Crosstabulation

			RESPONSE To										
	···		1 2 3 4 5 6 7 8 9 tal										
		Count	50	16	23	48	39	29	26	12	32	27	
	17-19	<b>Expected Count</b>	50	21.7	22.3	43	36	33.5				5 27	
		Std. Residual	0	-1.2	0.2	0.8	0.5	-0.8	19	-1.8	29.9	5	
		Count	195	86	87	179	135	136	73	73	110	10 74	
	20-24	Expected Count	195.4	84.7	86.9	167.7	141	131	73	79	117	10 74	
		Std. Residual	0	0.1	0	0.9	-0.5	0.5	0.1	-0.6	-0.6		
		Count	53	24	26	43	42	32	13	27	31	29 1	
	25-29	Expected Count	53	23	23.6	45.4	38.1	35.4	20	21	31.7	29 1	
		Std. Residual	0	0.2	0.5	-0.4	0.6	-0.6	-1.5	1.2	-0.1		
AGE		Count	27	13	12	19	21	19	10	16	18	15 5	
	30-34	Expected Count	28.2	12.2	12.5	24.2	20.3	18.9	11	11	16.9	15 5	
		Std. Residual	-0.2	0.2	-0.2	-1.1	0.2	0	-0.1	1.4	0.3		
		Count	20	10	6	11	12	14	6	10	16	10 5	
į	35-39	Expected Count	19.1	8.3	8.5	16.4	13.7	12.8	7.1	7.7	11.4	10 5	
		Std. Residual	0.2	0.6	-0.9	-1.3	-0.5	0.3	-0.4	0.8	1.4		
		Count	6	3	2	2	5	4	2	2	4	30	
	40-44	Expected Count	5.5	2.4	2.4	4.7	3.9	3.6	2	2.2	3.3	30	
		Std. Residual	0.2	0.4	-0.3	-1.2	0.5	0.2	0	-0.1	0.4		
	45-49	Count	2	1	1	1	0	2	1	2	0	10	
	45-49	Expected Count Std. Residual	1.8	0.8	0.8	1.6	1.3	1.2	0.7	0.7	1.1	10	
			0.1	0.2	0.2	-0.4	-1.1	0.7	0.4	1.5	-1	-10	
Total		Count	353	153	157	303	254	236	131	142	211	19 40	
	Expected Count		353	153	157	303	254	236	131	142	211	19 40	

	om square		· · · · · · · · · · · · · · · · · · ·
	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	33.480(a)	48	0.945
Likelihood Ratio	35.937	48	0.9

N of Valid Cases

1940

a 17 cells (27.0%) have expected count less than 5. The minimum expected count is .68.

**DUTY \* RESPONSE Crosstabulation** 

			JUII "	KESPU!			PONSI	<u> </u>				
		7	1	2	3	4	5	6	7	8	9	Total
	0-3	Count	241	95	115	212	172	160	91	89	140	1315
	years	Expected Count	239.3	103.7	106	204.7	172	160	90	96	144	1315
	, са, з	Std. Residual	0.1	-0.9	0.9	0.5	0	0	0.2	-0.7	-0.3	
		Count	56	27	21	56	46	38	22	27	31	324
	4-6	Expected Count	59	25.6	26.1	50.4	42.4	39.4	22	24	35.4	324
years	Std. Residual	-0.4	0.3	-1	0.8	0.5	-0.2	0	0.7	-0.7		
		Count	14	8	8	11	12	7	3	3	9	75
	7-9 years	Expected Count	13.6	5.9	6	11.7	9.8	9.1	5.1	5.5	8.2	75
	years	Std. Residual	0.1	0.9	0.8	-0.2	0.7	-0.7	-0.9	-1.1	0.3	
		Count	14	7	2	10	8	10	3	9	8	71
	10-12	Expected Count	12.9	5.6	5.7	11.1	9.3	8.6	4.8	5.2	7.8	71
DUTY	years	Std. Residual	0.3	0.6	-1.6	-0.3	-0.4	0.5	-0.8	1.7	0.1	
		Count	14	9	5	6	8	10	8	9	11	80
	13-15	Expected Count	14.6	6.3	6.4	12.5	10.5	9.7	5.4	5.9	8.7	80
	years	Std. Residual	-0.1	1.1	-0.6	-1.8	-0.8	0.1	1.1	1.3	0.8	
		Count	12	6	5	6	6	10	5	4	11	65
	16-18	Expected Count	11.8	5.1	5.2	10.1	8.5	7.9	4.4	4.8	7.1	65
	years	Std. Residual	0.1	0.4	-0.1	-1.3	-0.9	0.7	0.3	-0.3	1.5	
		Count	2	1	0	1	2	1	0	1	2	10
	19-21	Expected Count	1.8	0.8	0.8	1.6	1.3	1.2	0.7	0.7	1.1	10
:	years	Std. Residual	0.1	0.2	-0.9	-0.4	0.6	-0.2	-0.8	0.3	0.9	
Total		Count	353	153	156	302	254	236	132	142	212	1940
Total		<b>Expected Count</b>	353	153	156	302	254	236	132	142	212	1940

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.347(a)	48	0.931
Likelihood Ratio	36.672	48	0.883
Linear-by-Linear Association	1.849	1	0.174
N of Valid Cases	1940		

a 12 cells (19.0%) have expected count less than 5. The minimum expected count is .68.

**SUP \* RESPONSE Crosstabulation** 

						10334461	************					
			RESPONSE									700
			1	2	3	4	5	6	7	8	9	Total
		Count	236	95	105	212	171	165	93	89	129	1295
	No	Expected Count	236.3	102.1	104	201.6	170	158	88	95	141	1295
SUP		Std. Residual	0	-0.7	0.1	0.7	0.1	0.6	0.5	-0.6	-1	
SUF		Count	118	58	51	90	83	71	39	53	82	645
	Yes	<b>Expected Count</b>	117.7	50.9	51.9	100.4	84.4	78.5	44	47	70.2	645
		Std. Residual	. 0	1	-0.1	-1	-0.2	-0.8	-0.7	0.8	1.4	
Total		Count	354	153	156	302	254	236	132	142	211	1940
Total	Expected Count		354	153	156	302	254	236	132	142	211	1940

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	9.113(a)	8	0.333
Likelihood Ratio	9.052	8	0.338
Linear-by-Linear Association	0.471	1	0.492
N of Valid Cases	1940		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.89.

# **Appendix 7: Demographic Effects on the Importance of Job-Related Information**

**GRADE** \* **RESPONSE** Crosstabulation

						RESPO	NSE				Total
			1	2	3	4	5	6	7	8	Total
		Count	10	9	13	6	8	5	11	8	70
	e1	<b>Expected Count</b>	8.2	9.5	10.5	7.7	4.7	6.9	11.3	11.2	70
		Std. Residual	0.6	-0.2	0.8	-0.6	1.5	-0.7	-0.1	-1	
		Count	23	22	25	21	11	20	27	24	173
	e2	<b>Expected Count</b>	20.2	23.5	26.1	19	12	17	28	27.6	173
		Std. Residual	0.6	-0.3	-0.2	0.5	-0.2	0.7	-0.2	-0.7	
		Count	58	62	70	41	40	35	72	75	453
	e3	Expected Count	53	61.5	68.2	49.8	31	44.5	73.2	72.3	453
	!	Std. Residual	0.7	0.1	0.2	-1.2	1.7	-1.4	-0.1	0.3	
		Count	59	79	79	66	30	55	89	94	551
GRADE	e4	<b>Expected Count</b>	64.5	74.8	83	60.5	37	54.1	89	88	551
		Std. Residual	-0.7	0.5	-0.4	0.7	-1.2	0.1	0	0.6	
		Count	19	19	28	23	8	25	27	26	175
	e5	<b>Expected Count</b>	20.5	23.8	26.4	19.2	12	17.2	28.3	27.9	175
		Std. Residual	-0.3	-1	0.3	0.9	-1.1	1.9	-0.2	-0.4	
		Count	11	17	16	11	7	12	22	19	115
	e6	<b>Expected Count</b>	13.5	15.6	17.3	12.6	7.7	11.3	18.6	18.4	115
		Std. Residual	-0.7	0.4	-0.3	-0.5	-0.3	0.2	0.8	0.1	
		Count	1	2	2	2	0	0	2	1	10
	e7	<b>Expected Count</b>	1.2	1.4	1.5	1.1	0.7	1	1.6	1.6	10
		Std. Residual	-0.2	0.6	0.4	0.9	-0.8	-1	0.3	-0.5	
Total		Count	181	210	233	170	104	152	250	247	1547
Total		<b>Expected Count</b>	181	210	233	170	104	152	250	247	1547

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-			
Square	28.940(a)	42	0.937
Likelihood			
Ratio	29.923	42	0.919
Linear-by-		ļ	
Linear Association	1 717	•	0.10
	1.717	1	0.19
N of Valid			
Cases	1547		

a 9 cells (16.1%) have expected count less than 5. The minimum expected count is .67.

AGE \* RESPONSE Crosstabulation

			RESPONSE								
			1	2	3	4	5	6	7	8	Total
	17-19	Count	30	27	33	21	22	19	31	32	215
		<b>Expected Count</b>	25.5	29	32.5	23.6	15	21.3	34.4	34.1	215
		Std. Residual	0.9	-0.4	0.1	-0.5	1.9	-0.5	-0.6	-0.4	
		Count	105	117	132	102	63	85	143	141	888
	20-24	<b>Expected Count</b>	105.2	119.7	134	97.4	60	87.8	142	141	888
		Std. Residual	0	-0.3	-0.2	0.5	0.3	-0.3	0.1	0	
	25-29	Count	26	35	41	20	14	26	37	40	239
		<b>Expected Count</b>	28.3	32.2	36.1	26.2	16	23.6	38.3	38	239
		Std. Residual	-0.4	0.5	0.8	-1.2	-0.6	0.5	-0.2	0.3	
	30-34	Count	13	18	17	16	5	14	22	20	125
AGE		<b>Expected Count</b>	14.8	16.9	18.9	13.7	8.5	12.4	20	19.8	125
		Std. Residual	-0.5	0.3	-0.4	0.6	-1.2	0.5	0.4	0	
	35-39	Count	11	13	12	10	4	8	15	12	85
		<b>Expected Count</b>	10.1	11.5	12.9	9.3	5.8	8.4	13.6	13.5	85
		Std. Residual	0.3	0.5	-0.2	0.2	-0.7	-0.1	0.4	-0.4	
	40-44	Count	2	2	3	4	0	5	4	5	25
		Expected Count	3	3.4	3.8	2.7	1.7	2.5	4	4	25
		Std. Residual	-0.6	-0.7	-0.4	0.8	-1.3	1.6	0	0.5	
	45-49	Count	1	2	2	1	0	0	2	2	10
		<b>Expected Count</b>	1.2	1.3	1.5	1.1	0.7	1	1.6	1.6	10
		Std. Residual	-0.2	0.6	0.4	-0.1	-0.8	-1	0.3	0.3	
Total		Count	188	214	240	174	108	157	254	252	1587
IUIAI		<b>Expected Count</b>	188	214	240	174	108	157	254	252	1587

	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-					
Square	21.996(a)	42	0.995		
Likelihood Ratio	24.649	42	0.985		
Linear-by- Linear					
Association	0.454	1	0.5		
N of Valid Cases	1587				

a 16 cells (28.6%) have expected count less than 5. The minimum expected count is .68.

**DUTY \* RESPONSE Crosstabulation** 

			RESPONSE								
	-		1	2	3	4	5	6	7	8	Total
	0-3	Count	132	146	161	113	75	102	168	169	1066
	years	Expected Count	125.6	143.7	161	116.9	73	106	171	169	1066
		Std. Residual	0.6	0.2	0	-0.4	0.2	-0.4	-0.2	0	
	4-6	Count	32	33	44	31	24	26	42	44	276
	years	Expected Count	32.5	37.2	41.6	30.3	19	27.5	44.2	43.8	276
	,	Std. Residual	-0.1	-0.7	0.4	0.1	1.2	-0.3	-0.3	0	
	7-9	Count	6	11	9	7	2	8	11	11	65
	years	<b>Expected Count</b>	7.7	8.8	9.8	7.1	4.5	6.5	10.4	10.3	65
		Std. Residual	-0.6	0.8	-0.3	0	-1.2	0.6	0.2	0.2	
	10-12 years	Count	6	8	8	9	2	9	12	11	65
DUTY		Expected Count	7.7	8.8	9.8	7.1	4.5	6.5	10.4	10.3	65
		Std. Residual	-0.6	-0.3	-0.6	0.7	-1.2	1	0.5	0.2	
	13-15 years	Count	6	7	10	9	1	6	9	7	55
		<b>Expected Count</b>	6.5	7.4	8.3	6	3.8	5.5	8.8	8.7	55
		Std. Residual	-0.2	-0.2	0.6	1.2	-1.4	0.2	0.1	-0.6	
	16-18	Count	4	7	5	4	5	6	10	9	50
	years	Expected Count	5.9	6.7	7.5	5.5	3.4	5	8	7.9	50
		Std. Residual	-0.8	0.1	-0.9	-0.6	0.8	0.5	0.7	0.4	
	19-21	Count	1	2	2	1	0	1	2	1	10
	years	Expected Count	1.2	1.3	1.5	1.1	0.7	1	1.6	1.6	10
	<u> </u>	Std. Residual	-0.2	0.6	0.4	-0.1	-0.8	0	0.3	-0.5	
Total		Count	187	214	239	174	109	158	254	252	1587
~ ~		Expected Count	187	214	239	174	109	158	254	252	1587

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi- Square	18.857(a)	42	0.999
Likelihood Ratio	20.749	42	0.998
Linear-by- Linear Association	1.047	1	0.306
N of Valid Cases	1587	1	0.500

a 13 cells (23.2%) have expected count less than 5. The minimum expected count is .69.

**SUP \* RESPONSE Crosstabulation** 

			RESPONSE							T-4-1	
			1	2	3	4	5	6	7	8	Total
	No Yes	Count	130	145	158	108	81	95	166	164	1047
		<b>Expected Count</b>	124	141.8	158	114.1	71	104	168	166	1047
SUP		Std. Residual	0.5	0.3	0	-0.6	1.2	-0.9	-0.1	-0.2	
SUI		Count	58	70	81	65	27	63	88	88	540
		<b>Expected Count</b>	64	73.2	81.3	58.9	37	53.8	86.4	85.7	540
		Std. Residual	-0.7	-0.4	0	0.8	-1.6	1.3	0.2	0.2	
Total	·	Count	188	215	239	173	108	158	254	252	1587
Total		Expected Count	188	215	239	173	108	158	254	252	1587

**Chi-Square Tests** 

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-			
Square	8.481(a)	7	0.292
Likelihood Ratio	8.63	7	0.28
Linear-by- Linear			
Association	1.061	1	0.303
N of Valid Cases	1587		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 36.75.